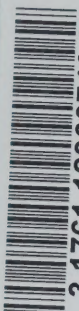
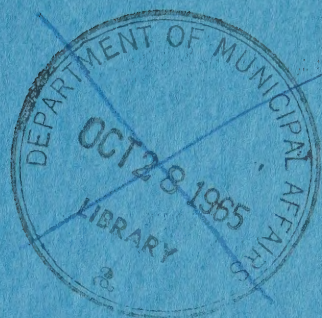
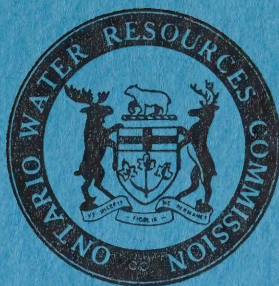


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THE
ONTARIO WATER RESOURCES
COMMISSION

WATER POLLUTION SURVEY

OF THE

VILLAGE OF MILDMAY

COUNTY OF BRUCE

1964

REPORT

on

WATER POLLUTION SURVEY

of the

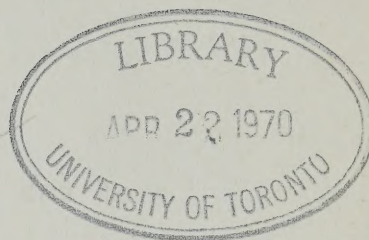
VILLAGE OF MILD MAY

COUNTY OF BRUCE

Date of Sampling : May 7, 1964

Division of Sanitary Engineering





R E P O R T

ONTARIO WATER RESOURCES COMMISSION

A water pollution survey was made in the Village of Mildmay on May 7, 1964, to ascertain whether conditions exist which may cause pollution of Otter Creek as it flows through the village.

INTRODUCTION

This survey is in keeping with the functions of the Ontario Water Resources Commission in its programme to control pollution of all surface and ground water in the province. The procedure followed is to examine these waters to find all sources of pollution and to take steps to abate these where there is an impairment of the quality of the water. In this way, an effort is being made to ensure a water quality which will make these waters useful for such purposes as sources of domestic water supply, fish and wildlife, recreation, industry, agriculture, navigation, and all riparian activities.

GENERAL

The Village of Mildmay, with a population of 875, and a taxable assessment of \$ 741,000.00 (dollars) as reported in the 1964 Municipal Directory for the Province of Ontario, is situated in the Township of Carrick, in the south-east part of the County of Bruce.

Otter Creek flows through the village and is the receiving stream for the storm sewer system. The creek is part of the Saugeen River watershed which empties into Lake Huron at the Town of Southampton.

R E P O R T

ONTARIO WATER RESOURCES COMMISSION

A water pollution survey was made in the Village of Midway on May 3, 1964, to ascertain whether conditions exist which may cause pollution of Otter Creek as it flows through the village.

INTRODUCTION

This survey is in keeping with the functions of the Ontario Water Resources Commission in its programs to control pollution of all surface and ground water in the province. The procedure followed in this survey was to inspect the quality of the water in the creek and to determine the sources of pollution. In this survey, a report was made to ensure a water quality which will meet the needs of such purposes as domestic water supply, fish and wildlife, recreation, industry, agriculture, navigation, and all other activities.

GENERAL

The Village of Midway, with a population of 415, and a taxable assessment of \$ 741,000.00 (dollars) as reported in the 1963 Municipal Directory for the Province of Ontario, is situated in the Township of Carleton Place, in the south-east part of the County of York.

Otter Creek flows through the village and is the receiving

WATER USES

1. Municipal Water System

There is a municipal water supply system which draws its water from two drilled flowing wells. There is no treatment provided to the supply, and there is no record of the output of the wells or the consumption from the supply. According to the last water works report by the Commission dated February 4, 1964 the system was operating satisfactorily.

2. Recreational Uses

Otter Creek is used for swimming above the dam immediately upstream of Mildmay. A conservation area is located on the creek immediately downstream of the village. Picnic facilities are provided in this area.

WATER POLLUTION

1. Sanitary Waste Disposal

(a) Existing Conditions

The village does not have a municipal sewage treatment works. Sanitary waste water is disposed of by individual sewage treatment systems. Information available indicated that septic tank systems were being used, and that some of these discharged to the storm sewer system or directly to the creek via private tile drains. A sanitary survey conducted by the Bruce County Health Unit in 1953 indicated at least 107 locations where sewage eventually reached the creek. There has been no indication that conditions have improved

since that survey.

(b) Proposed Sewage Works

A preliminary engineering report on sewage works for the village was prepared by Proctor and Redfern, Consulting Engineers. The report dated January 14, 1963, outlined a staged project at a cost of \$ 160,000.00 (dollars). The facilities would include sanitary sewers, pumping station and a 6-acre lagoon for the first stage of the project. The lagoon would be expanded to 10 acres upon completion of the final stage. To date the Commission has received no word from the Mildmay Council to indicate its reaction toward the engineer's report.

2 Refuse Disposal

The refuse disposal site used by the village is located in the Township of Carrick. It consists of an abandoned gravel pit and no apparent pollution problem has resulted.

3 Industrial Waste Disposal

Mildmay Creamery is the only industry with a significant waste water discharge. The waste water is directed to the Elora Street storm sewer which discharges to Otter Creek.

4 Discussion of Sample Analyses

(a) Sampling Procedure

Samples were collected for bacteriological examination and chemical analysis from Otter Creek and from the storm sewer outlets to the receiving stream. The sample location points and the

results of the determinations made on the samples are appended to this report. Also appended to this report is an explanation of the significance of tests performed on the samples.

(b) Summary of the Sample Results

A comparison of the samples taken upstream of the village and downstream of the village reveal a definite increase in both B.O.D. and coliform count at the downstream location. This fact may be attributed to the contaminated waste water being discharged to the creek from the storm sewer system of the village.

(i) Chemical Analyses

The chemical analyses performed on the samples indicate that grossly contaminated water was being discharged from the two storm outfalls at Elora Street and from the storm sewer outfall on the north side of Otter Creek at Absalm Street. The respective B.O.D. results of 58 ppm., 210 ppm. and 45 ppm. indicate that raw sewage or partially treated sewage is being discharged to the storm sewers.

(ii) Bacteriological Examinations

The coliform counts found at the two Elora Street outfalls, the Absalm Street outfall on the north side of Otter Creek and from the creek about 500 feet downstream from the Elora Street bridge, were well above the upper limit of 2,400 organisms deemed desirable by the Commission. It should be noted that the latter sample result is from the creek as it flows through the Conservation Area.

(c) Results Compared to Previous Surveys

The discharging of contaminated water to the Otter Creek which is shown by the above results substantiates the findings of the previous pollution surveys carried out by the Commission in the Village of Mildmay.

CONCLUSION

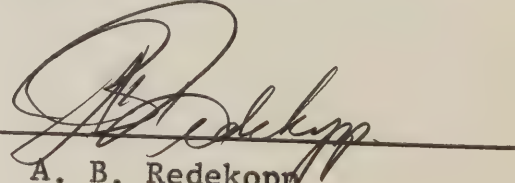
The Commission is concerned with all sources of pollution which may gain access to any watercourse in the Province of Ontario. Industrial and domestic sewage should receive adequate treatment before being discharged to a stream. Correction of the adverse conditions found during this survey may be accomplished by the severance of all private sewage connections to the storm sewers or the installation of sanitary sewers and a sewage treatment plant. In a great number of cases, this latter procedure is the more desirable.

RECOMMENDATIONS

It is recommended that the discharging of contaminated waste water to Otter Creek be discontinued.

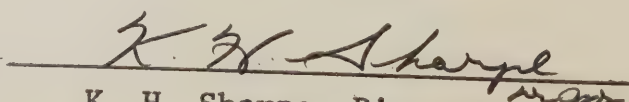
All of which is respectfully submitted,

District Engineer :-


A. B. Redekopp

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Approved by :-


K. H. Sharpe, Director.

Prepared by :

R. G. Quance, C.S.I.

Village of Mildmay

<u>Date</u>	<u>Sampling Pt. No.</u>	<u>Location</u>	<u>5-Day B.O.D.</u>	<u>Total</u>	<u>Susp.</u>	<u>Diss.</u>	<u>Membrane Filter Coliforms per 100 ml.</u>
May 7/64	S0-55.9	Otter Creek 500 ft. downstream from Elora St. Bridge.	2	326	10	316	81,000
"	S0-56.0-W-1	Otter Creek at storm sewer outlet on north side of Elora St.	58	770	68	702	610,000
"	S0-56.0-W-2	Otter Creek at storm sewer outlet on south side of Elora St.	210	638	86	552	940,000,000
"	S0-56.3-W-1	Otter Creek at storm sewer outlet on south- west side of Absalm St.	0.5	340	3	337	630
"	S0-56.3-W-2	Otter Creek at storm sewer outlet on north- east side of Absalm St.	45	702	190	512	1,030,000
"	S0-56.5	Otter Creek at dam up- stream from Mildmay.	0.8	284	5	279	290

Note: All analyses reported in ppm, unless otherwise indicated.

